

# Nutrition tips for runners - What to Eat Before Running

---

*By Kelly Jones MS, RD, CSSD, a consultant dietitian who works with Clif Bar & Company, in professional and collegiate sports, the media, and as an associate professor educating nursing and exercise science students. The ideas and suggestions written below are provided for general educational purposes only and should not be construed as medical advice or care. Always seek the advice of a physician or other qualified health provider before beginning any physical fitness or health- and nutrition-related activity.*



It may seem like common sense that fuelling up before a run will contribute to a faster, longer and more pleasant experience. But, because 30-50% of runners suffer from some form of gastrointestinal (GI) upset during a run, many choose to forego eating altogether, while others may under fuel.

Depending on the individual, runners can need as much as 105 grams of carbohydrates per hour. It's vital to eat carbohydrates pre-run to help your body prepare for this need and to avoid distractions like hunger and early fatigue.

So, what should you eat before your run? While the answer is highly individualized based on our physiological differences, food tolerances, and personal preferences, below you will find science-backed guidance to help you prepare for your next run and perform at your best.

## What Not to Eat Before a Run

Before we get into what you should eat, let's cover what not to eat. Whether you're heading to the starting line for a marathon or hitting the trail for a 5km run, eating the wrong foods beforehand can derail performance. Now, no two bodies are the same. We all tolerate various foods differently. So, it's crucial to pay attention to what foods, spices, and ingredients make your stomach uneasy during training so you can avoid these come race day.

Experts suggest avoiding foods high in fibre, fat, and protein several hours before a run. While these three nutrients are crucial at meals and snacks throughout the day, they slow down digestion and absorption of carbohydrates (which is key to energising performance).

Also, during endurance exercise (e.g., running) these nutrients can result in reduced stomach emptying. That means that not only will it take carbohydrates longer to get from your stomach to your bloodstream and muscles, but it also increases the chance of cramping, bloating and discomfort during your run.

## Foods to Avoid Within 3 Hours of a Run

- High-fibre legumes, like beans and lentils
- High-fibre vegetables, such as asparagus, brussels sprouts, broccoli, etc.
- Foods high in saturated fat, including bacon, beef, cheese, fried foods, etc.
- Fruit high in fructose, such as apples and pears
- Any foods that have caused even mild GI discomfort for you in the past

## Nutrition Demands of Your Run

While pre-workout fuel depends on the length of your run, consuming an overall diet low in calories and carbohydrates will undoubtedly impair performance regardless of what you eat before you start moving.

Total energy and carbohydrate needs vary based on an individual's weight, training regimen and fitness level, but they typically range from 6-12 grams of carbohydrates per kilogram of body weight (g/kg) during the 24 hours before exercise.

## **Eating for a Short Run or Sprint**

Short, high intensity runs lasting 30 minutes or less, or sprint workouts with ample rest in between, require less total energy during exercise than longer runs. While the body's carbohydrate use goes up as exercise intensity increases, if you're eating enough calories and carbohydrates on a daily basis, your muscle carbohydrate (glycogen) stores should be sufficient to get you through these activities.

However, if it's been a while since your last meal, a small bite can help prevent the onset of hunger and help maintain your energy levels during the race. Focus on pre-race foods that are high in easily digestible carbohydrates and lower in protein, fat, and fiber. For example, with an optimal blend of plant protein, fat, and carbs in a small, energy-packed bar, a CLIF Energy Bar is a great pre-workout option.

## **Food Ideas 1-2 Hours Before a Short Run**

- A slice of toast with hummus
- Oatmeal with dried fruit and plant-based milk
- Smoothies with yogurt, berries, and 100% fruit juice

## **Eating for an Easy Run**

If your easy run is low intensity and under 30 minutes, you won't have to pay much attention to perfecting your pre-run fuelling - so long as you avoid the no-no foods indicated above. However, it may be beneficial to schedule your normal meals and snacks around your workouts, so you always feel as if you have the energy you need to move.

## **Eating for a Long Run**

For longer runs lasting over 60 minutes, you'll require more total energy, and therefore should eat a meal 3-4 hours prior to starting exercise, along with a snack closer to race time. Specifically, runners should aim for 1-4 g/kg of carbohydrates about 1-4 hours prior to a long run to obtain adequate energy and endurance benefits. The goal of pre-race meals and snacks is to prevent hunger, avoid GI discomfort, increase glycogen stores, and provide glucose to energise your body. The meal should be high in carbohydrates and can contain moderate amounts of fat and protein, with low to moderate amounts of fiber. If you consume a full meal 3-4 hours in advance of your run, roughly 3 g/kg of carbohydrates is enough, as you can obtain the remaining 1 g/kg in your snack.

## **Meal Ideas 3-4 Hours Before a Long Run**

Granola served with plant-based milk and topped with nuts, seeds, and banana

Whole wheat pancakes topped with maple syrup, berries, and nut butter

Brown rice bowl with peppers, carrots, and a small grilled chicken breast in a plum sauce

Peanut butter and jelly sandwich with a glass of low-fat milk or soy milk

Closer to race time you'll want to top off your glycogen energy stores with a high carbohydrate snack. If fuelling up 1-2 hours before the run, a CLIF Energy Bar or the snacks recommended for shorter, easier runs are great options. If looking for an energy boost right before the main event, focus on foods containing mainly easily digestible (fast-acting) carbohydrates.

## **Eating for a Morning Run**

If you're planning to run in the morning, you should consider how your dinner and snacks may impact your performance. Like pre-workout snacks and meals, food eaten the night before a long morning run should be familiar, adequate in carbohydrates and not excessive in fat, protein, or fiber.

After a night of rest and recovery, it is especially important to restore glycogen, as it is depleted during an overnight fast. Unfortunately, there is often not enough time to eat and fully digest a large, carbohydrate-packed meal before an AM run. Luckily experts suggest that this challenge can be overcome!

Research has shown that consuming 30 grams of easily digestible carbohydrates, in the form of food or fluids, up to 5-15 minutes before exercise can benefit performance. One CLIF® SHOT® Energy Gel provides ~25 grams of fast-acting carbohydrates and can be a great option for pre-breakfast runs lasting over an hour. However, if you have a short run planned in the morning, you may want to consider skipping pre-workout fuel to avoid the chance of GI distress.

If you have the time for breakfast before your AM run, here is one of my favourite ways to start the day:

### **Overnight or Microwave Oats:**

Ingredients:

- Quick oats
- Dairy or non-dairy milk
- Chia seeds
- Maple syrup or honey
- Berries or dried fruit
- Nut butter

Preparation:

- Overnight Oats: Mix all ingredients in a container and let it sit in the refrigerator overnight.
- Microwave Oats:
  - Mix milk, oats, and seeds in a bowl and microwave for 1 minute
  - Stir and microwave another 30 seconds until desired consistency is reached
  - Add sweetener, fruit, and nut butter to taste

### **Takeaway Tips**

Nutrition for training and racing is highly individualised. The meal and snack suggestions in this article are examples that have worked well for some runners I've worked with in my practice. With that said, just because a meal benefits one runner, it doesn't mean it will work for all! Use trial and error, and don't let one reaction to one meal or snack prevent you from eating before your runs altogether. With a little effort and time, you can find the foods and eating routine that can help optimize your training and performance!

